What is claimed is:

1. A multipoint autofocus system, comprising:

detecting means for detecting a focus state of objects

5 at different positions in a plurality of focus detection

zones on an image surface;

selecting means for selecting focus data of one of said

focus states detected by said detecting means;

focusing means for moving a focusing lens system in

10 accordance with said selected focus data;

judging means for judging a contrast of said objects

detected in said focus detection zones; and

control means for selecting data representing a

shortest object distance from among said focus data of said

15 objects in said focus detection zones in which said judged

object contrast is higher than a predetermined value.

2. A multipoint autofocus system according to claim 1,

wherein if said object contrasts of said objects in all of

said focus detection zones are below said predetermined

20 value, said focus data of an object in a central focus

detection zone on said image surface is selected.

3. A multipoint autofocus system according to claim 1,

wherein if effective focus data of said object in said

central focus detection zone is not obtained, focus data

25 representing said shortest object distance is selected.

70

4. A multipoint autofocus system according to claim 1, wherein said focus data represents an amount of defocus.

5. A multipoint autofocus system according to claim 4, wherein said amount of defocus is 0 when an object is located infocus condition, said amount of defocus is + when an object is located closer than said infocus condition and said amount of defocus is - when an object is located farther than said infocus condition, wherein said shortest object distance representing a largest amount of defocus.

5. The mulitpoint autofocus system according to claim 4, wherein said defocus amount is zero (0) when an object is under an in-focus condition, said defocus amount is plus (+) when said object stands closer than a focusing point, and said defocus amount is minus (-) when said object stands farther than said focusing point; and wherein the largest defocus amount is arranged to indicate the closest object distance.   -

6. A multipoint autofocus system according to claim 5, wherein said detection of said focus state and said movement of said focusing lens system are repeatedly carried out, and wherein said defocus of said focus detection zone that has been selected in said previous operation has a priority to said defocuses of said focus detection zones that have not been selected in said previous operation.

71

7.   A multipoint autofocus system according to claim 5, wherein said detection of said focus state and said movement of said focusing lens system are repeatedly carried out and wherein said requirement to select said current defocus for

5   said focus detection zone that has been selected in said previous operation is less strict than said current defocus for said focus detection zones that have not been selected in said previous operation.

8.   A multipoint autofocus system according to claim 5,

10   wherein said detection of said focus state and said movement of said focusing lens system are repeatedly carried out and wherein said defocus of said central focus detection zone on said image surface has a priority in selection to those of other focus detection zones.

15   9.   A multipoint autofocus system according to claim 5, wherein said detection of said focus state and said movement of said focusing lens system are repeatedly carried out and wherein said defocus of said focus detection zone that has been selected in said previous operation is replaced by said

20   defocus plus a predetermined amount of defocus to determine said current defocus.

10.   A multipoint autofocus system, comprising:

a plurality of light receiving means which receive

25   object images within a plurality of focus detection zones

72

and perform an integration operation to integrate electric

charges produced by a photoelectric conversion of optical

signals of said object images;

a plurality of monitor means located adjacent to said

5   light receiving means for receiving and integrating said

object images within said focus detection zones and for

monitoring values of said electric charges that have been

integrated of said corresponding light receiving means;

integration control means for stopping said integration

10 operation of said corresponding light receiving means when

said integration value monitored by said monitor means

reaches a predetermined value; and

correction means for correcting said integration value

of said light receiving means whose integration operation

15 has been stopped by said integration control means, in

accordance with a correction value to correct a difference

in said integration value between said monitor means and

said corresponding light receiving means.

11.   A multipoint autofocus system according to claim

20 10, wherein said correction means sets said correction

values of other light receiving means with reference to said

light receiving means corresponding to a central focus

detection zone on said image surface.

12.   A multipoint autofocus system according to claim

25 10, wherein said predetermined value is set based on an

73

integration value of a central monitor means which monitors

a central focus detection zone, so that said integration

values of said light receiving means corresponding to other

monitor means can be set with reference to said central

5   monitor means.

13.   A multipoint autofocus system according to claim

10, further comprising a focus detection means for

terminating said integration operation when said integration

operation of all said light receiving means which have been

10 permitted to conduct said integration operation ends, and

for detecting said focus state of said focus detection zones

in accordance with said integration values of said light

receiving means that have been corrected by said correction

means.

15

14.   A multipoint autofocus system, comprising:

a plurality of light receiving means which receive

object images within a plurality of focus detection zones

and perform an integration operation to integrate electric

20 charges produced by a photoelectric conversion of optical

signals of said object images;

counter means for counting an integration time of said

light receiving means;

a plurality of monitor means adjacent to said light

25 receiving means for receiving and integrating said object

images within said focus detection zones and for monitoring values of said electric charges that have been integrated of said corresponding light receiving means;

integration control means for stopping said integration operation of said corresponding light receiving means when said integration value monitored by said monitor means reaches a predetermined value;

gain setting means for comparing a gain of said integration value of said light receiving means that have not reached said predetermined value after a maximum integration time has lapsed, with said predetermined value that has been corrected in accordance with correction value to correct said integration value of said corresponding monitor means to thereby set said gain.

15. A multipoint autofocus system according to claim 14, wherein said integration control means varies said predetermined value stepwise after said lapse of said maximum integration time to compare said modified predetermined value with said integration value by said monitor means.

16. A multipoint autofocus system according to claim 14, wherein said gain setting means sets said gain by comparing said integration value with said predetermined value that has been successively corrected in accordance with said correction values to correct said integration

value of said corresponding monitor means in an order of magnitude of absolute values of said correction values.

17. A multipoint autofocus system according to claim 14, wherein said integration control means compulsively
5 stops said integration operation of all said light receiving means that have not reached said varied predetermined value.

18. A multipoint autofocus system, comprising:

a line sensor which receives object images and outputs
10 a signal corresponding to a brightness thereof; and

control means having an A/D converter which converts said signal output from said line sensor to a digital signal,

wherein a conversion precision of said A/D converter
15 can be varied.

19. A multipoint autofocus system according to claim 18, wherein said line sensor is comprised of a CCD line sensor.

20. A multipoint autofocus system according to claim
20 19, wherein said A/D converter converts said signal output of said CCD line sensor to 10 bit digital data and converts said 10 bit digital data to 9 bit or 8 bit digital data.

21. A multipoint autofocus system according to claim
20, wherein said 10 bit digital data produced by said A/D
25 converter is converted into 9 bit digital data when a

76

saturation output voltage of said CCD line sensor is less than one-half of a full range of said A/D converter and wherein said 10 bit digital data produced by said A/D converter is converted into 8 bit digital data when said

5   saturation output voltage of said CCD line sensor is greater than one-half of said full range of said A/D converter.